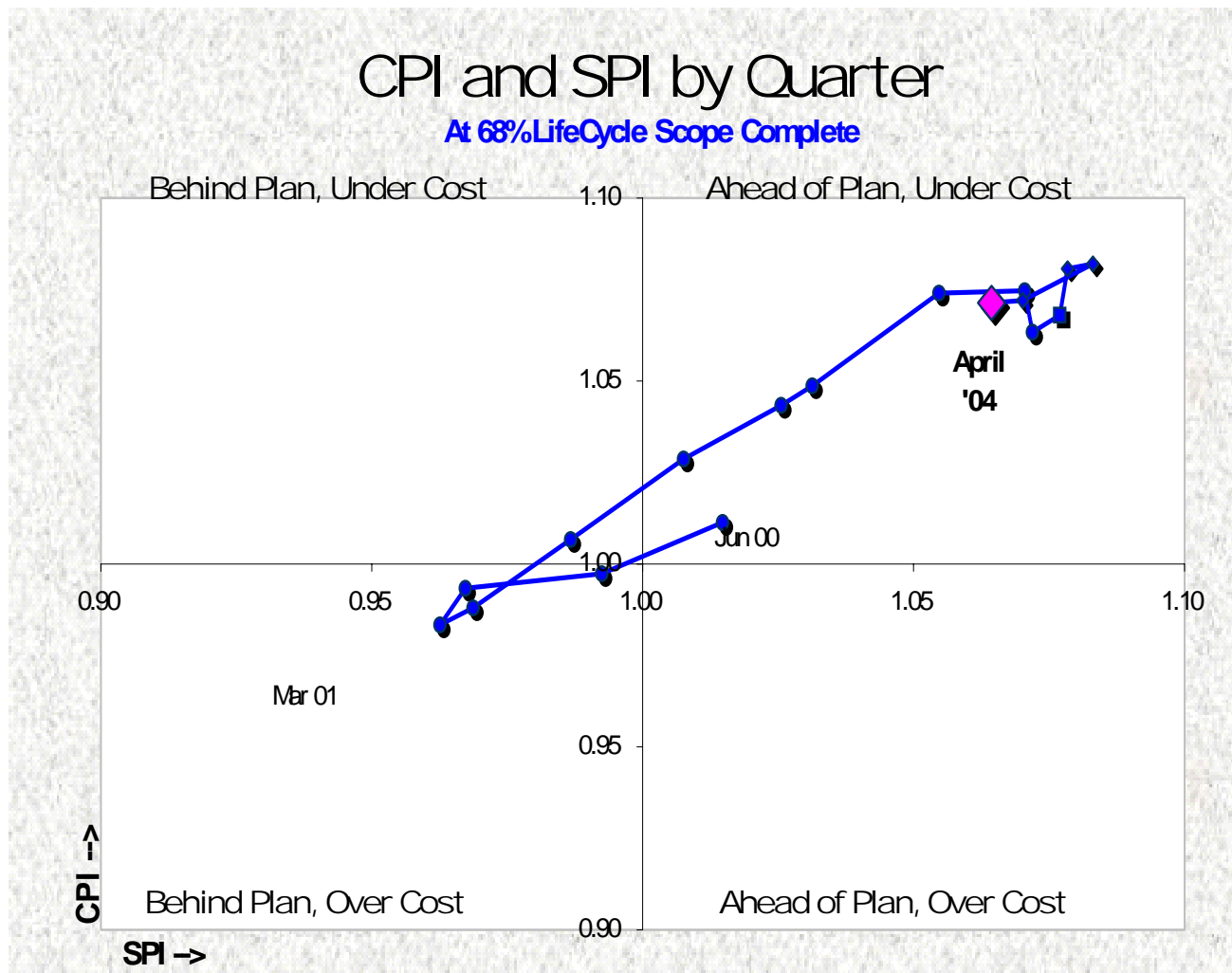


# ROCKY FLATS

## Monthly Project Report

FY04

April, 2004



# Monthly Project Report Rocky Flats

April 2004

## Executive Overview

**In General:** The Closure Project is 70% complete against the contract baseline, and is significantly below estimated cost and ahead of schedule. K-H continues its emphasis on working safely and maintaining compliance with procedures to ensure safe operations.

**Key Accomplishments:** D&D activities remain on or ahead of schedule as critical closure work progresses in the nuclear buildings and on the south side of the Industrial Area. Three reportable facilities and eight other miscellaneous structures were demolished during April, and steam line removal is 70% complete. The Waste program shipped approximately 400m<sup>3</sup> of TRU, 16,000m<sup>3</sup> of Low Level, and 600m<sup>3</sup> of Low Level Mixed Waste this month. The contractor has completed sampling for three IHSS Groups and the Buffer Zone (Phase 1).

METRIC	
<b>Safety:</b>	<b>NTS Reports: 0</b> <b>Events of "Significant Concern" or above: 3</b>
<i>Bears Watching</i>	<u>Offsite Hospitalizations:</u> 2 <u>Rad/Haz Transport Incidents:</u> 2 <u>Lock-Out-Tag-Out:</u> 1 <u>Other Events:</u> 3 <u>Contaminations:</u> 2
<b>Cost Variance:</b>	<b>Cumulative Cost Variance = +7%, +\$185M out of ~\$2,773M BCWP<sub>CUM</sub></b>
<i>On Plan</i>	<i>LIFECYCLE: 70% of target scope completed; 65% of target cost expended.</i>
<b>Schedule Variance:</b>	<b>Predetermined Work Activities SV = +56% ,+\$171M</b>
<i>On Plan</i>	<i>LIFECYCLE: 27% of scope scheduled; 42% of scope completed.</i>  <b>Traditional Schedule Variance = +7%, +\$168M</b> <i>LIFECYCLE: 65% of scope scheduled; 65% of scope completed.</i>
<b>Critical Path</b>	<b>CP = B371 D&amp;D, ER activities      Estimated Completion Date: December 15, 2006</b>
<b>Completion Date: On Plan</b>	The critical path continues to involve B371 D&D followed by site grading. RFPO is continuing to use the original Target Date, December 15, 2006, as the ECD. The lack of a LLMW receiver site for waste between 10 and 100 nanocuries/gram is causing concerns related to the demolition of potential on-site storage location. This may begin to affect the critical path. 62% (51 months) of contract duration elapsed.
<b>Current CP: On Plan</b>	
<b>Key Milestones</b>	<b>Closure Activities:</b> Three reportable structures, were completed in April; the 991 Product Warehouse, the B883 Cooling Tower, and the B130cafeteria and warehouse. A combined total of eight additional structures, tanks, and stacks were also demolished this month. The steam line removal increased from 55% to approximately 70% during the month. Major decontamination efforts took place in B881 and B444, and asbestos removal in B443 remains on target. Field characterization sampling was completed for three IHSS Groups; the Pad north of B553, the Central Avenue Ditch, and B887. Also completed Phase 1 CRA Buffer Zone sampling.
<b>DNFSB: none remaining</b>	<b>RFCA Milestones:</b> All milestones scheduled for completion in FY 2004 are completed.
<b>RFCA: 2004 complete</b>	
<b>GFS/I</b>	GFS/I requirements are being met and/or are in process except as noted here:
<b>Status: On Plan</b>	Need DOE receiver site for Low Level Mixed Waste Orphans (between 10 and 100 nanocuries/gram).
<b>Forecast: Bears Watching</b>	

# Monthly Project Report Rocky Flats

April 2004

## Executive Summary

### Contract Status

**TC:** 3.973B (Original: 3.963)

**TF:** \$340.8M (Original: \$340M)

**TCD:** 15 December 2006

### Penalty Assessment

No Fee Penalties were issued this month. To date, four fee penalties have been issued under the terms of this contract with total penalties equaling \$510,000.

### Requests for Equitable Adjustments (REAs):

The National Emergency REA remains under HQ review. All other pending REAs were resolved by modification M 116 to the contract, with no impact on target cost and fee.

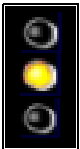
### Pending REA's: ~ \$16.4M

~ \$16.4 million: National Emergency (2002 – 2003 Costs)



### Critical Path

The Critical Path continues to run through B371 D&D activities, followed by site grading. RFPO is monitoring the critical path and near critical path activities resulting from the contractor's accelerated schedule and for the time being will continue to utilize December 15, 2006 as the estimated completion date. The lack of a LLMW receiver site is being monitored for proximity to the critical path.



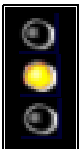
### GFS/I Performance

Most requirements have been and continue to be met. The key remaining issue is the identification of disposal sites for LLMW between 10 and 100 nCi/g activity.

Two possible sites have been identified: Hanford, and the Nevada Test Site (NTS):

- Disposal at Hanford depends upon a Record of Decision that has been delayed until May 2004.
- Disposal at NTS depends upon permit approval from the State of Nevada - with no specific timeframe.

Without disposal capability, these "orphans" may need to be stored offsite at increased cost. Some may be returned to the site after treatment, only to face diminishing storage capacity as facilities are deactivated and demolished. Contingency planning for this issue continues.



### Safety

### 3 Events of "Significant Concern" or Above

0 Site Noncompliance Tracking Report

Offsite Hospitalizations: 2

Rad/Haz Transport Incidents: 2

Contaminations: 2

Lock-Out-Tag-Out Violations: 1

Other Events: 3

**Hospitalizations:** 1) B371 D&D worker tripped on a protruding pipe stub and knee fractured in two places. 2) A rod shifted and lacerated a workers right wrist in B444. **LOTO:** Workers removed LO/TO equipment without authorization assuming that in cold-and-dark B444, the formal process was not required. **Contaminations:** 1) Worker in B371 used previously contaminated kneepads and received 11,000dpm on his left leg. 2) Contamination was discovered on a cart wheel on dock 18T of B371. **Transport:** 1) After turning onto Highway 93 from the Site, a flatbed trailer disconnected from the tractor fifth wheel due to improper connection. 2) A waste truck stopped in traffic behind an accident was struck by privately owned vehicle. **Other:** 1) Worker attempting to move a scissor-lift while it was elevated mistakenly raised the lift instead. It cracked a sprinkler line and ~55 gallons of water flowed prior to isolation. 2) The insulation on a 480-Volt cord supplying power to a concrete saw in B771 was damaged while the saw was being repositioned. 3) The power cord (120v) on a circular saw was cut while size reducing a wooden waste crate at the 750 Pad.

Events of Significant Concern in April included the trailer disconnection, above, workpackage issues in B774, and the explosive decompression of a PremAire respirator emergency escape bottle, which injured personnel, damaged the adjacent dry wall, and resulted in the suspension of all Supplied Air activities until the bottles could be inspected.

# Monthly Project Report Rocky Flats

April 2004

## Cost Performance



### Cost

Cost Variance +7%, +\$185M

*LIFECYCLE: 70% of scope completed; 65% of target cost expended*

The Cost Variance on the Project remains significantly positive, with about \$185 million in cost savings accumulated since the beginning of the contract. Cost variance for contractual activities increased \$2M this month, remaining at a positive 7% variance against the baseline plan. Positive cost variances continue to be concentrated in PBD E, Industrial and Site Services Project and PBD G, the Environmental Remediation Project where accelerated D&D and IHSS remediation are resulting in significant cost savings. The majority of the negative variance is located in the 371, 707, and 771 Sub-projects.

In the 371 Project, \$5M in workscope took more than \$9M to complete. Most of the Closure Project's negative cost variance is in this PBD, in historical costs associated with PUSPS and SNM packaging. However, an additional \$15M in negative CV has accrued since the completion of PuSPS (July, 2003). Most of the current variance is caused by productivity delays in the building's highly contaminated dismantlement sets (Canyons and Central Storage Vault). Activities in this PBD continue to dominate the critical path.

In the 707 Project, \$3M in workscope took about \$4M to complete this month. Most of the cost overruns are due to productivity delays in asbestos abatement and dismantlement of the second floor utility systems and safety systems. Delays have required longer use of higher cost Personal Protective Equipment (such as Supplied Breathing Air), while unexpected decontamination issues have resulted in costs for additional waste containers.

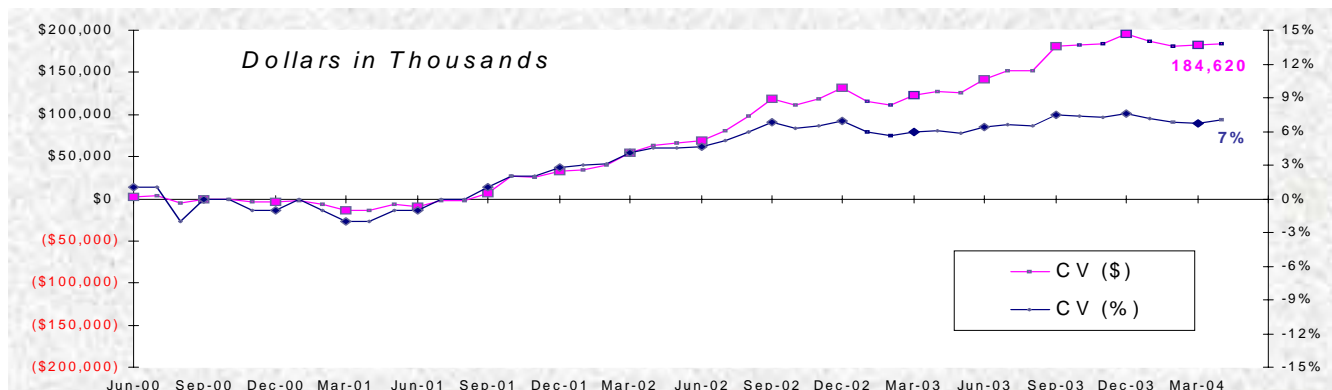
In the 771 Project, nearly \$2M of workscope took almost \$3M to complete. Increasing negative CV is anticipated since the fixed price contract for D&D of this Facility is \$9.5M more than the baseline estimate under the contract. Additional cost overruns are caused by increased usage of waste containers due to difficulties decontaminating the building, and increased labor and equipment costs due to schedule delays.

### Cost Performance by PBD\*:

Project Description	BCWP	ACWP	CV (\$)	CV (%)
1A 371 Complex Project	331,340	391,996	(60,656)	-18%
1B 707 Complex Project	199,875	216,078	(16,203)	-8%
1C B771/774 Closure Project	223,408	230,007	(6,599)	-3%
1D B776/777 Closure Project	198,697	192,065	6,633	3%
1E Industrial and Site Services Project	558,510	425,665	132,845	24%
1F Material Stewardship Project	608,661	612,275	(3,613)	-1%
1G Remediation Project	137,035	67,708	69,327	51%
1H Engr., Environ, Safety & Quality	172,615	153,568	19,047	11%
1J Support Project	343,136	299,296	43,839	13%
<b>Project Totals</b>	<b>2,773,277</b>	<b>2,588,658</b>	<b>184,620</b>	<b>7%</b>

Includes all target fund sources: EY06, FS30, EW09, GG08, NN61 and YN01 (EW05 was recast to EY06 and FS 40 recast to FS30 beginning in FY04)

### Cumulative Cost Variance Over Time



**NOTE:** Currently, the closure project has accumulated \$30M in non-target Site Closure (EY06) and Safeguards and Security (FS30) costs. These non-target costs are generally the result of technical direction and may eventually be considered as part of potential Requests for Equitable Adjustment, and / or will impact cost variance.

# Monthly Project Report Rocky Flats

April 2004

## Schedule Performance

DEFINITIONS OF ROCKY FLATS' SCHEDULE PERFORMANCE INDICATORS CAN BE FOUND IN THE GLOSSARY AT THE BACK OF THIS REPORT.



### Comparative Schedule Performance

The project-level positive schedule variances reflect the contractor's continued success at accelerating workscope. The majority of accelerated activities have been in the demolition of facilities in the industrial area (PBD E), IHSS remediations in PBD G, and in waste shipping in PBD F – not on the critical path. The current critical path remains dominated by activities in Building 371 (PBD A) followed by site grading (PBD G).

With the exception of waste shipment, most schedule variance metrics have continued to decline during April. Although the cumulative variances remain positive, prior gains are being offset by current delays in more highly contaminated and/or more difficult decontamination, dismantlement and clean-up activities. All the sub-projects continue to maintain a positive variance except for the B771/774 project which has dropped \$4M in PWA schedule variance since January. The B771/774 project is still having difficulty achieving free release levels by hydrolazing the floors. Hot spots will have to be cut out for disposal.

Project		SV <sub>TRAD</sub>	SV <sub>PWA</sub> *	SV <sub>MM</sub>	SV <sub>P3</sub> +/- Days**
1A	371 Complex Project	2%	2%	5%	250
1B	707 Complex Project	5%	18%	11%	198
1C	B771/774 Closure Project	0%	-9%	-1%	-21
1D	B776/777 Closure Project	10%	29%	20%	385
1E	Industrial and Site Services Project	18%	1178%	46%	244
1F	Material Stewardship Project	4%	91%	14%	256
1G	Environmental Remediation	23%	422%	25%	249
Total Project:		6.5%	56%	19%	249

\*These are K-H reported values. RFPO validates and reports on PWA performance quarterly, in the Total Project Report

\*\*KH's Accelerated Working Plan



### P3 Completion

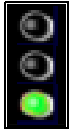
The *K-H generated* Estimated Completion Dates (using P<sup>3</sup> project scheduling software), are represented below.

The critical path continues to run through B371 D&D and site grading activities. RFPO is monitoring and will continue using the original Target Date, December 15, 2006 as the estimated completion date.

PBD	Activity Description	Baseline Early Finish	Statused Early Finish
A	B371	11-Oct-06	17-Oct-05
B	B707	13-Mar-06	31-May-05
C	B771/774	18-Aug-04	17-Sep-04
D	B776/777	31-Oct-06	22-Apr-05
E	Industrial Sites	11-Oct-06	15-Sep-05
F	Material Stew.	13-Dec-06	28-Oct-05
G	ER	14-Dec-06	09-Nov-05
Total Project		14-Dec-06	09-Nov-05

# Monthly Project Report Rocky Flats

April 2004

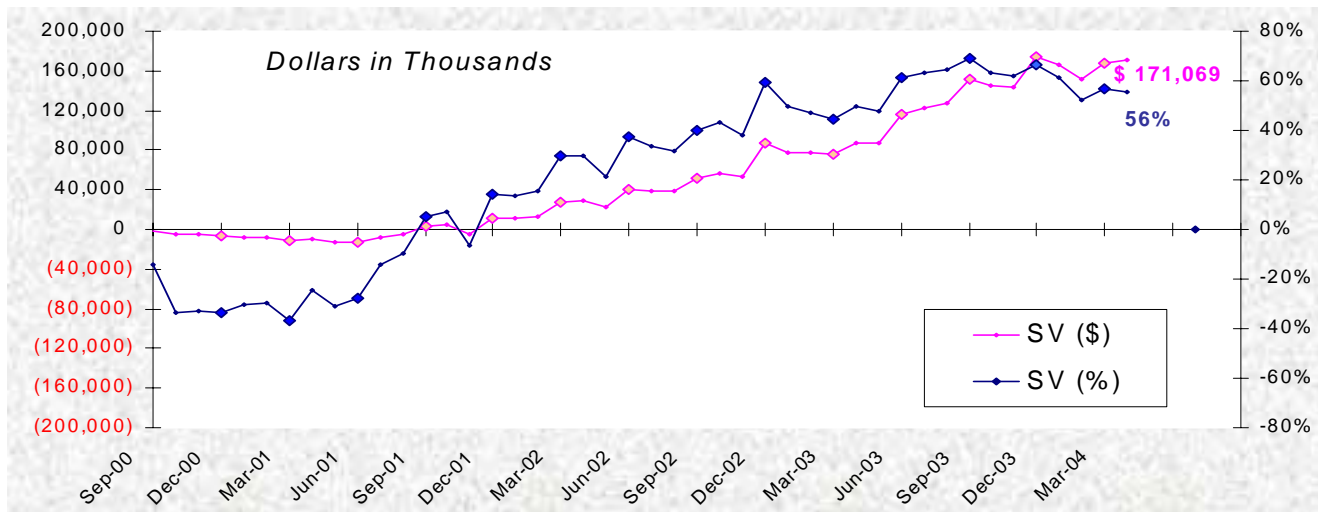


## Predetermined Work Activities

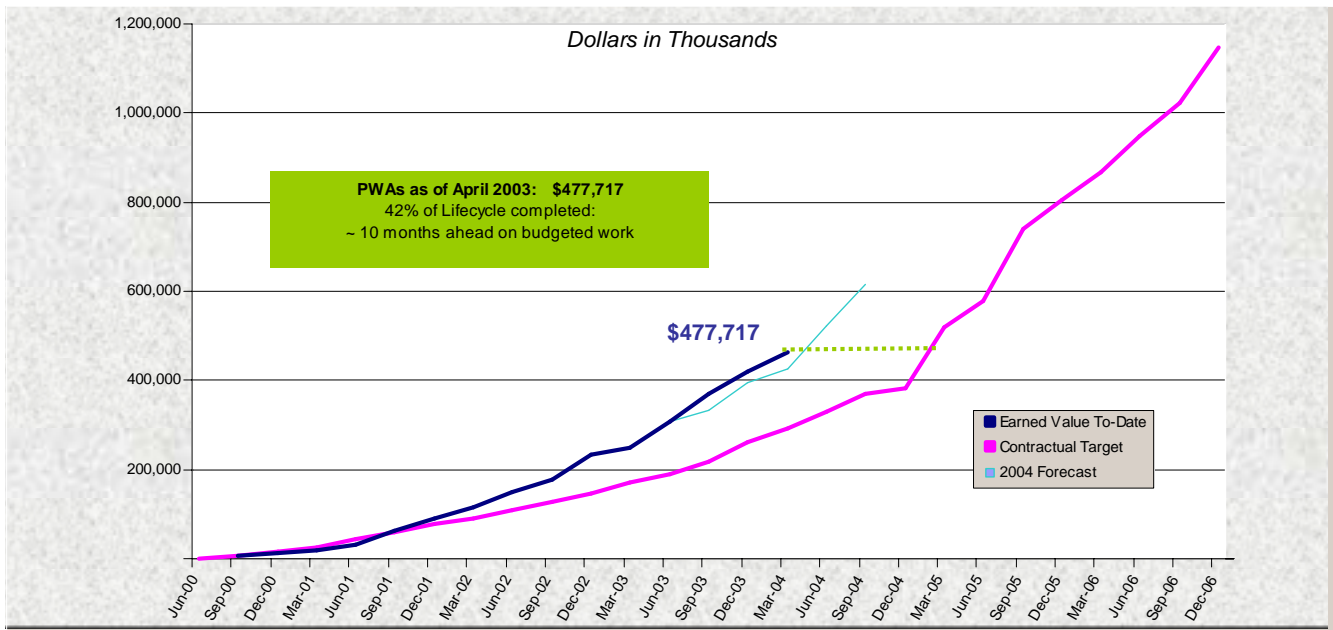
SV<sub>PWA</sub> (+\$171M, +56%)\*

About \$13M in critical closure scope was scheduled during the month of April, while about \$16M was completed. The current PWA schedule variance remains highly positive, and shows that the contractor has completed 56% more critical closure work than their baseline estimate. The current BCWS for these activities is \$307M with a lifecycle BCWS of \$1.145B. At the end of April 2004, 62% of the contract schedule had elapsed (51 out of 82.5 months), 27% of the PWA scope was scheduled for completion, and 42% (\$478M) of the PWA scope is complete.

\*These are K-H reported values. RFPO validates and reports on PWA performance quarterly, in the Total Project Report



## PWA Schedule: Actual against Baseline Projection





# Monthly Project Report Rocky Flats

April 2004

## Project Metrics

Project Metric	Contract Lifecycle Planned	CPB Planned to end of FY	FY Plan (AWA)	Actuals to Date	FY Actuals	Actuals for Month	LC Completion (CPB)	FY Completion (CPB)
Low Level Waste Disposed (m <sup>3</sup> )	184,475	116,662	54,000	170,539	70,938	15,998	92%	Exceeded Plan to-date
Low Level Mixed Waste Disposed (m <sup>3</sup> )	44,614	10,911	3,500	34,109	7,734	604	76%	Exceeded Plan to-date
TRU Waste Disposed (m <sup>3</sup> )	12,355	9,688	4,600	10,351	2,137	418	84%	Exceeded Plan to-date
B371 Project Work Sets	60	33	26	28	6	1	47%	85%
B707 Project Work Sets	99	72	16	74	6	0	75%	Exceeded Plan to-date
B771 Project Work Sets	106	106	35	79	8	1	75%	75%
B776 Project Work Sets	84	72	8	77	0	0	92%	Exceeded Plan to-date
Facilities Demolished	290	141	61	155	24	3	53%	Exceeded Plan to-date
Nuclear Facilities Decommissioned	6	2		1	0	0	17%	50%
Radioactive Facilities Decommissioned	54	14		20	5	1	37%	Exceeded Plan to-date
Industrial Facilities Decommissioned	317	197		221	19	2	70%	Exceeded Plan to-date
Environmental PWAs Completed	65	19	8	28	5	0	43%	Exceeded Plan to-date
Environmental Remediation Sites Completed	360	182	24	242	51	0	67%	Exceeded Plan to-date
Gloveboxes removed	1,324		277	1,255	164	23	93%	

# Key Definitions / Terms

## **Rocky Flats' schedule performance indicators:**

All indicators (except P3) use the standard formula  $SV = BCWP - BCWS$  and are measured in dollars, not time.

Performance is measured against the Life-Cycle Baseline as presented in June 2000 with minimal adjustments approved through our rigorous Change Control Process. The indicators defined below differ mainly in which budgeted costs are included in the analysis.

**Traditional Schedule Variance ( $SV_{TRAD}$ ):** This indicator addresses schedule performance compared to plan for the entire project contracted with Kaiser-Hill. It includes all "Target" costs as defined by the contract (EW05, EW09 (formerly EW02), FS40, GG08, YN01, and NN61). It does NOT include budgeted costs for things like performance fee, technology deployment, and program (RFFO) funds. A positive variance means that, compared to the original plan, more work was accomplished than planned. A negative variance means that less work has been accomplished than planned.

**Modified Milestone Schedule Variance ( $SV_{MM}$ ):** This schedule performance indicator is designed to focus on all the 'real' work at the site. It removes level-of-effort activities from the analysis, but adds the Technology Deployment budget. Again, the variance indicates that more work or less work was accomplished than planned.

**Predetermined Work Activities Schedule Variance ( $SV_{PWA}$ ):** In order to best assure that the government is awarding performance fee for the accomplishment and acceleration of the most important work at Rocky Flats, our contract with Kaiser-Hill includes a list and schedule of ~900 "Predetermined Work Activities" against which performance is measured and provisional fee is paid. Generally,  $SV_{PWA}$  calculations allow for earning value only when an activity is 100% complete (all or none), unless the activity is a quantity-based measure. These activities represent critical work necessary to the timely closure of the Site, and performance is measured against the baseline schedule set out at the beginning of the contract. Although the contractor is free to realign specific work activities as they see fit, the dollar amount of work accomplished against these critical activities is expected to remain on plan to facilitate timely closure of the site.

**Primavera Project Planner Schedule Variance ( $SV_{P3}$ ):** In contrast with the previous indicators, the P3 schedule variance is measured in units of time (days). The Primavera project scheduling software computes the longest (critical) path through the contractual work on the Project and arrives at the Statused Early Finish, (a.k.a. Estimated Completion Date). Variance is measured against the Baseline Early Finish as established in June 2000.

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**Orphans – Low Level Mixed Waste Orphans.** Wastes which must be removed from the Site but for which no disposal / treatment path has been identified and/or approved.

**D&D – Deactivation and Decommissioning.** Deactivation: the process of placing a "building" in a safe and stable condition. Decommissioning: All activities that occur after deactivation. Includes decontamination and dismantlement /demolition.

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**PBD A – 371 Complex Project.** Remaining D&D. Building demolition by October 11, 2006.

**PBD B – 707 Complex Project.** Remaining D&D. Building demolition by March 1, 2006.

**PBD C – 771 Complex Project.** Remaining D&D. Building demolition by August 4, 2004.

**PBD D – 776 Complex Project.** Remaining D&D. Building demolition by October 27, 2005. Removal of the slab/foundation by 4/26/06 and project completion by 10/31/06.

**PBD E – Industrial / Site Services Project.** The industrial and site services portion of the RISS Project, and other bldg D&D.

**PBD F – Material Stewardship Project.** Technical program direction and operational support for commodities, engineered services, procurement, traffic & transportation, and disposition of waste.

**PBD G – Remediation Project.** The Environmental Restoration (ER) Program is included in the RISS Project. The overall scope is to cleanup IHSSs, PACs, UBCs, and ground water plumes through accelerated actions under CERCLA and RFCA.

**PBD H – Engineering, Environmental, Safety, Quality, and Health.** Infrastructure. Includes; project management, assessment, oversight, regulatory compliance and monitoring, waste certification, technical training, Nuclear Safety and Licensing, Criticality Safety, Fire Protection, Engineering, Safety/Work Control, and Radiological Protection.

**PBD J – Support Project.** General Counsel & Audit (GC&A), Strategic Planning & Integration, Administration, and the K-H Executive Office.  
Executive Office.